

FIG. 1



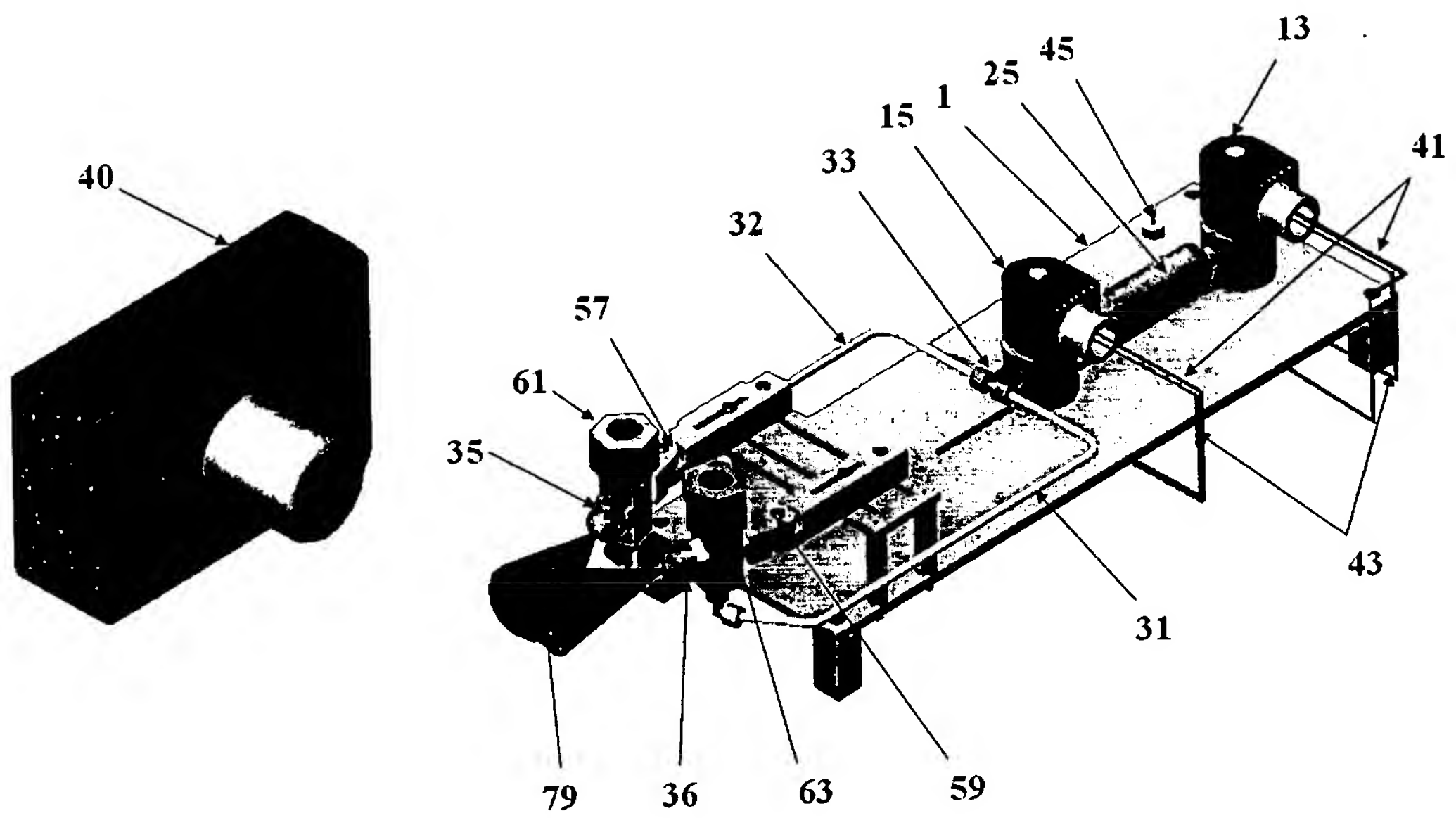


FIG. 3

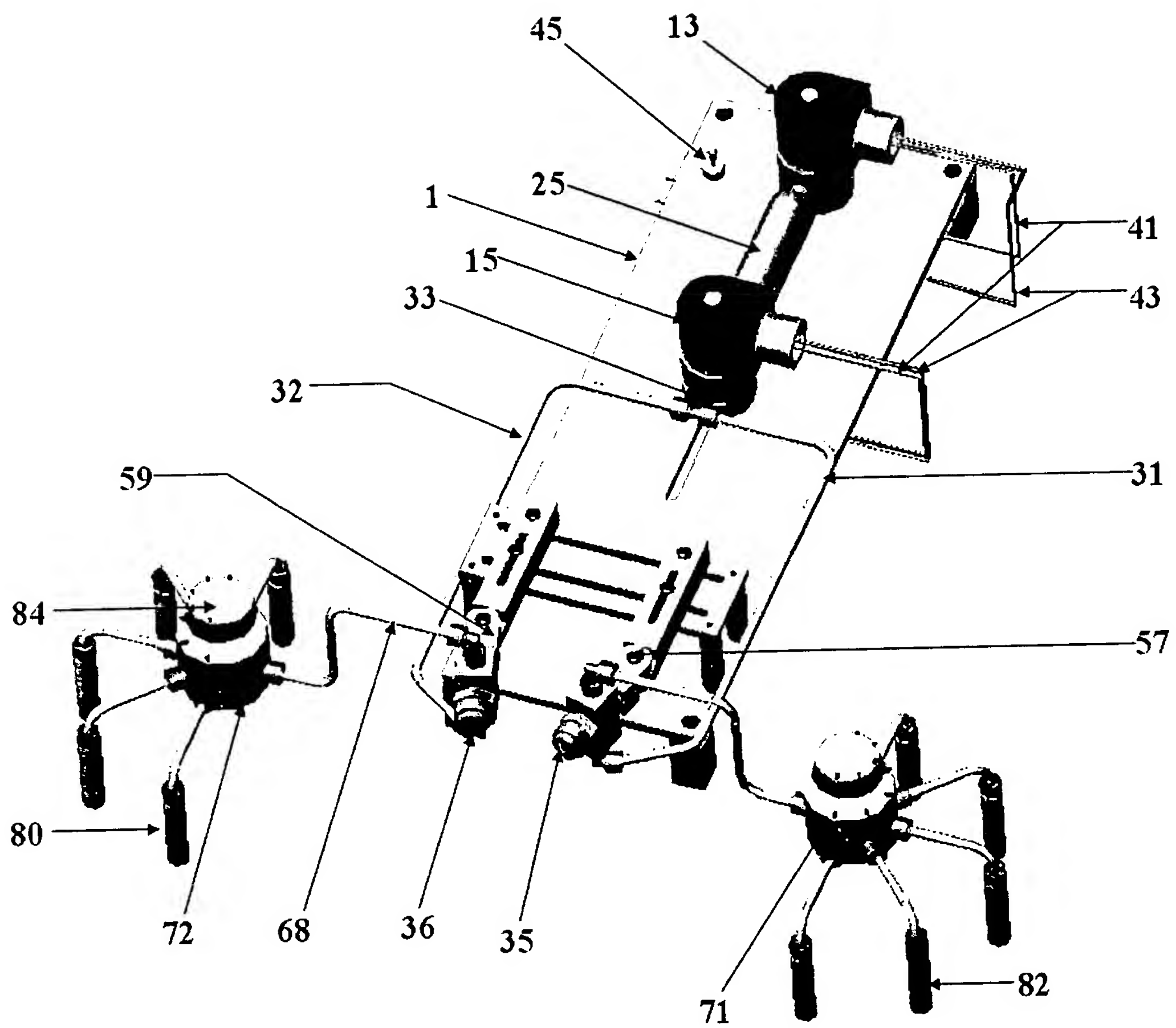


FIG. 4

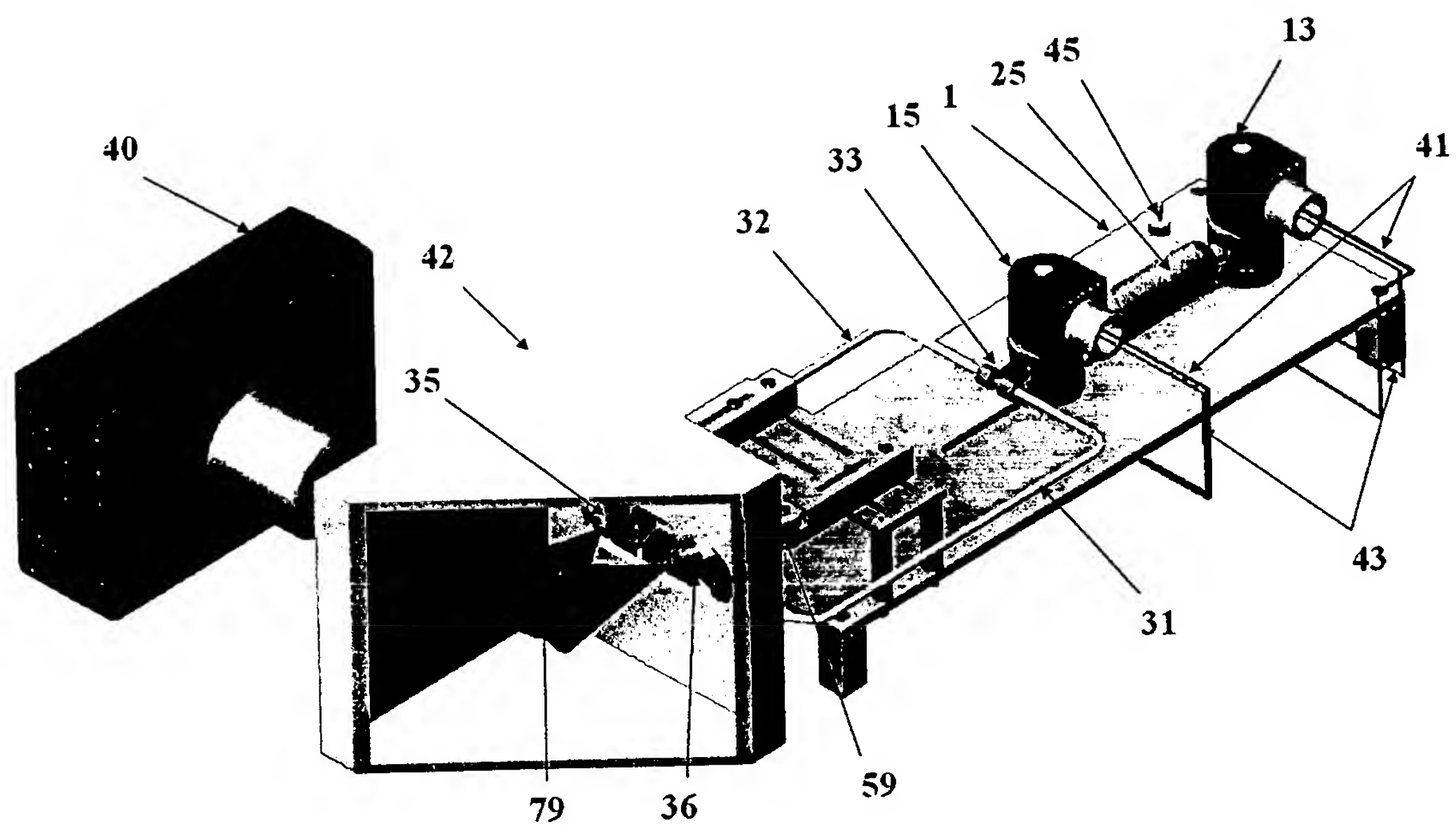


FIG. 5

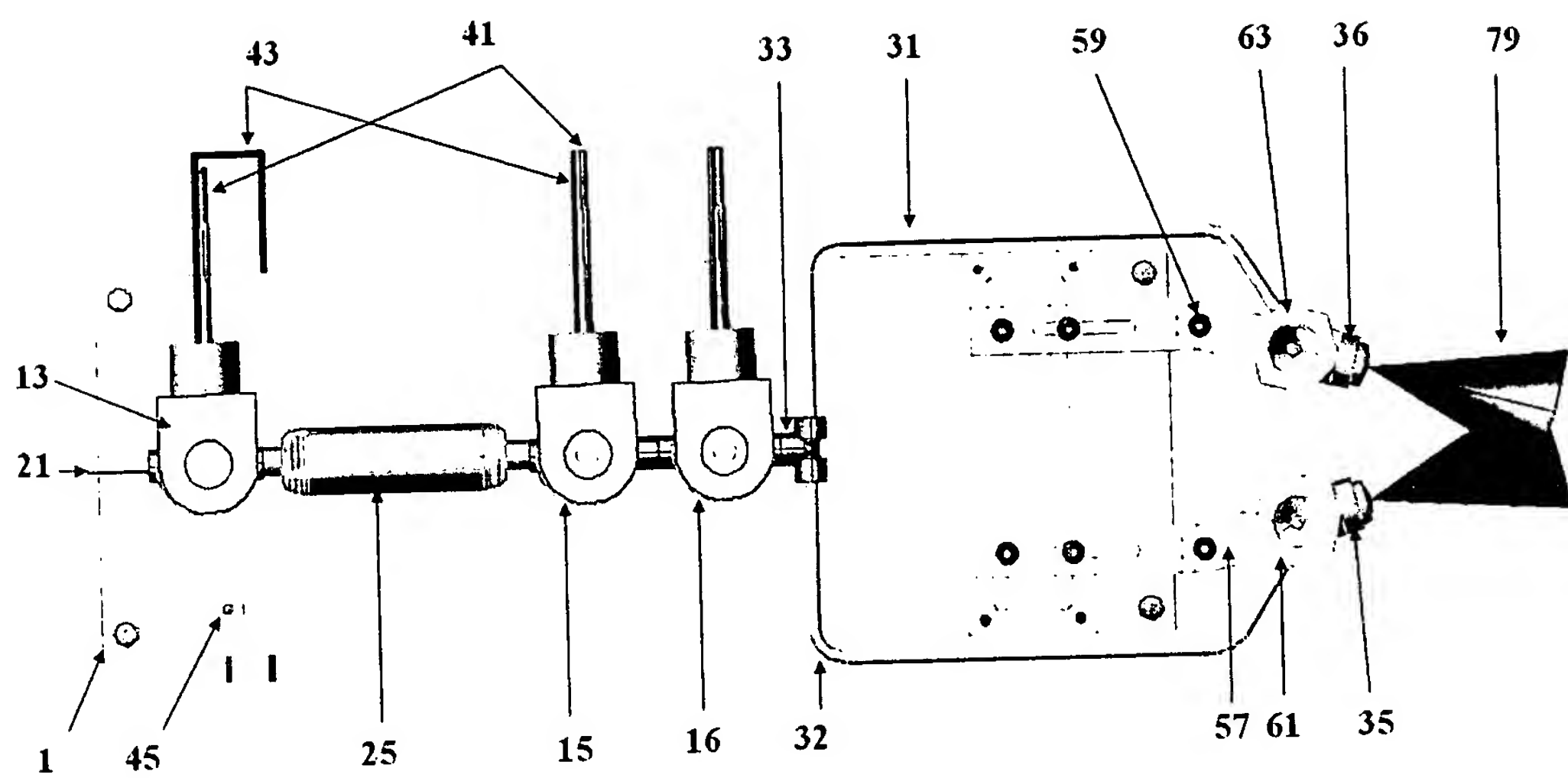


FIG. 6

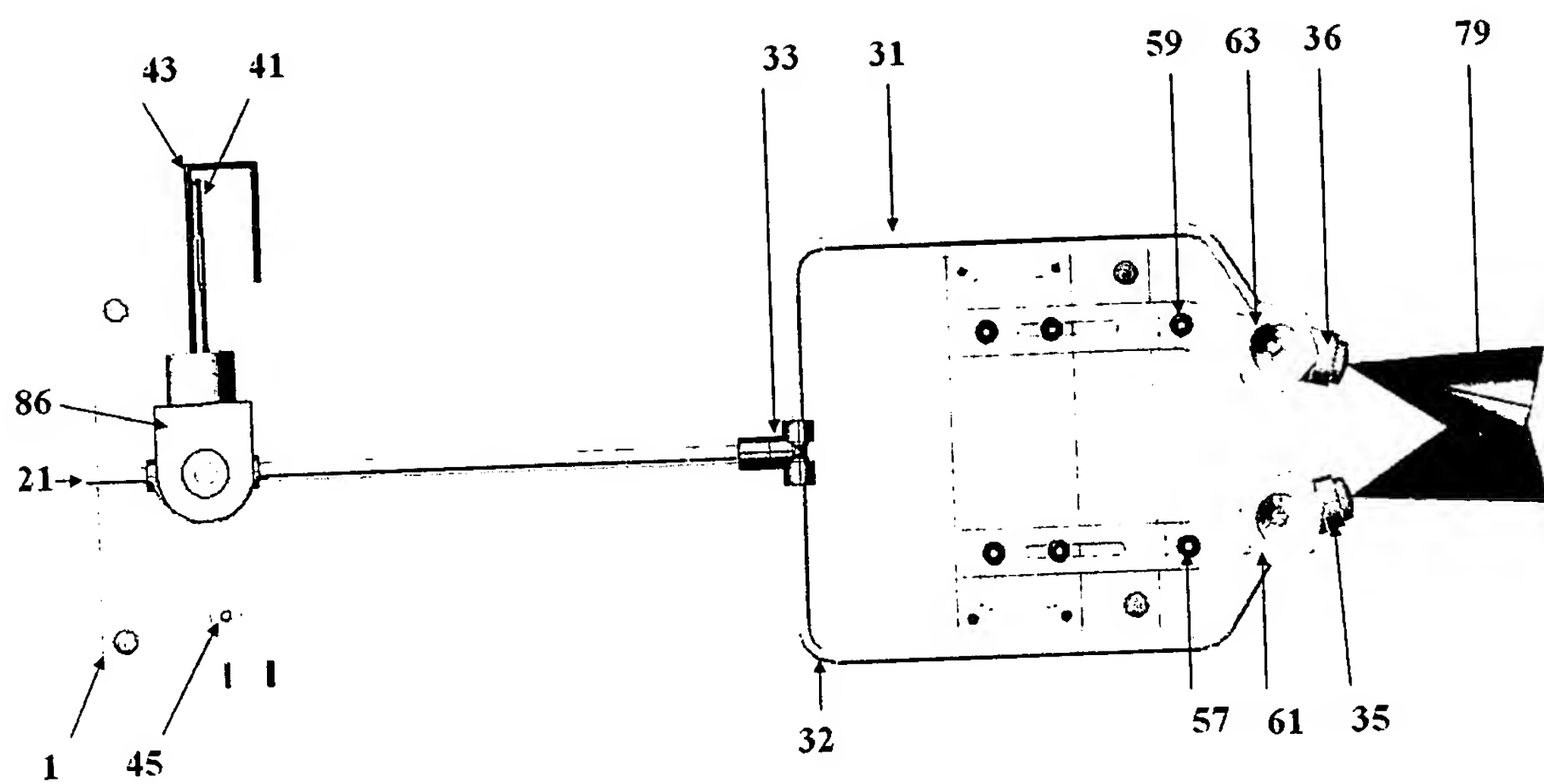
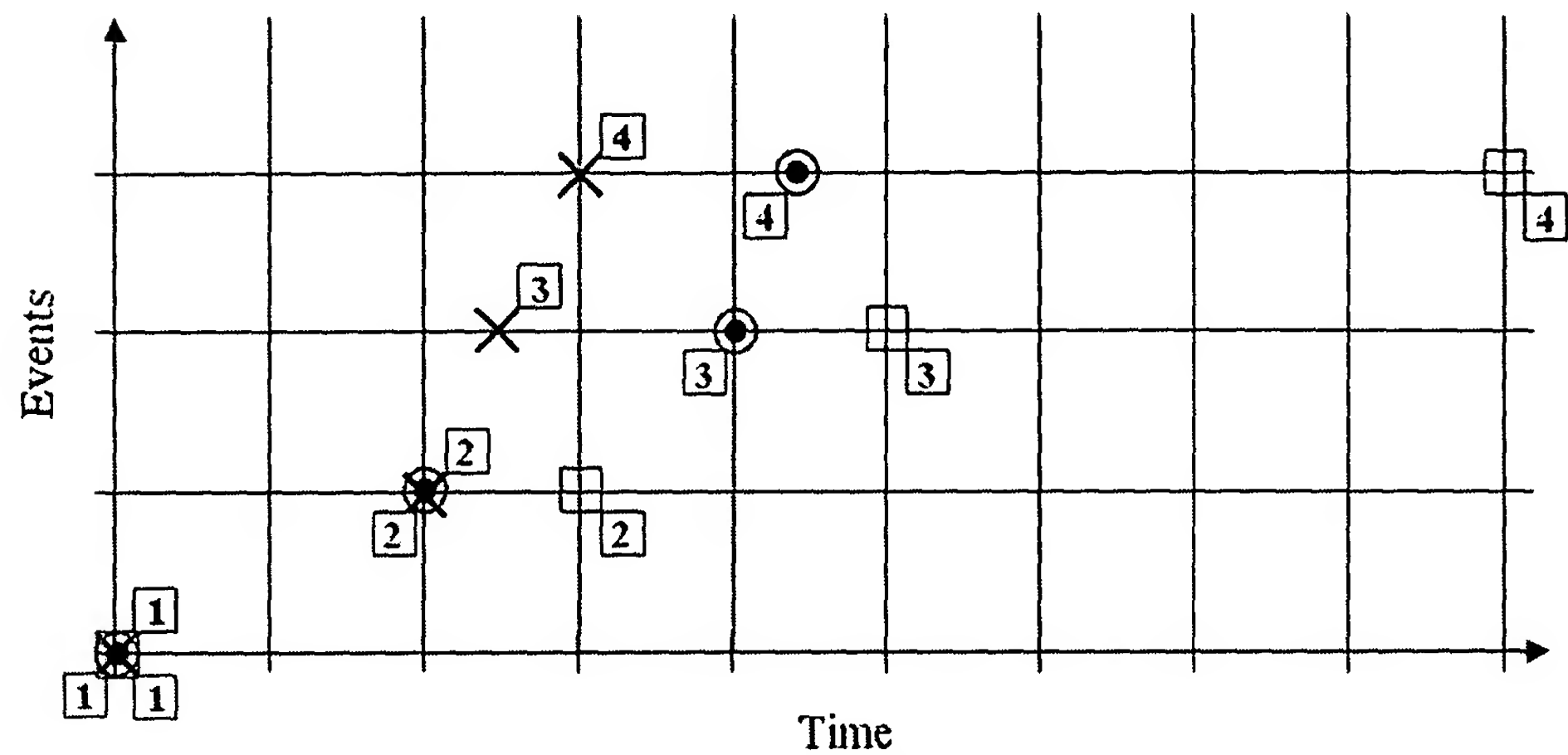


FIG. 7

Two-Sprays, Two-Jets and Drop Test – Difference in Ignition Delay Values



Legend:

Symbol	Device
	Two-sprays
	Two-jets
	Drop Test

<p>Drop Test:</p> <ol style="list-style-type: none"><li>1. Propellant out of drop generator</li><li>2. Drop hits crucible</li><li>3. Propellants visibly reacting</li><li>4. Ignition</li></ol>	<p>Two-Sprays and Two-Jets:</p> <ol style="list-style-type: none"><li>1. Propellants out of nozzles</li><li>2. Propellants impinge on each other</li><li>3. Propellants visibly reacting</li><li>4. Ignition</li></ol>
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FIG. 8



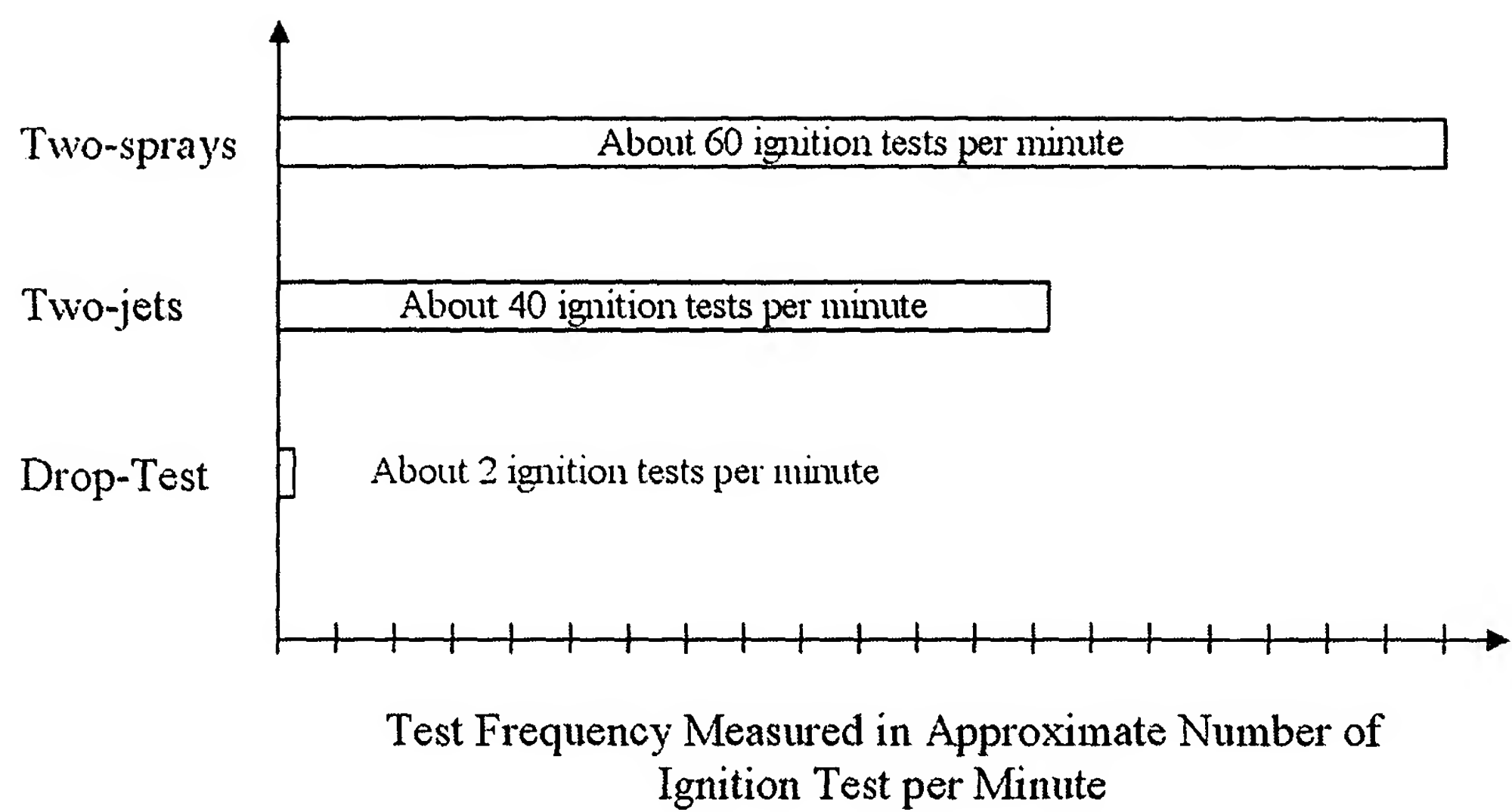
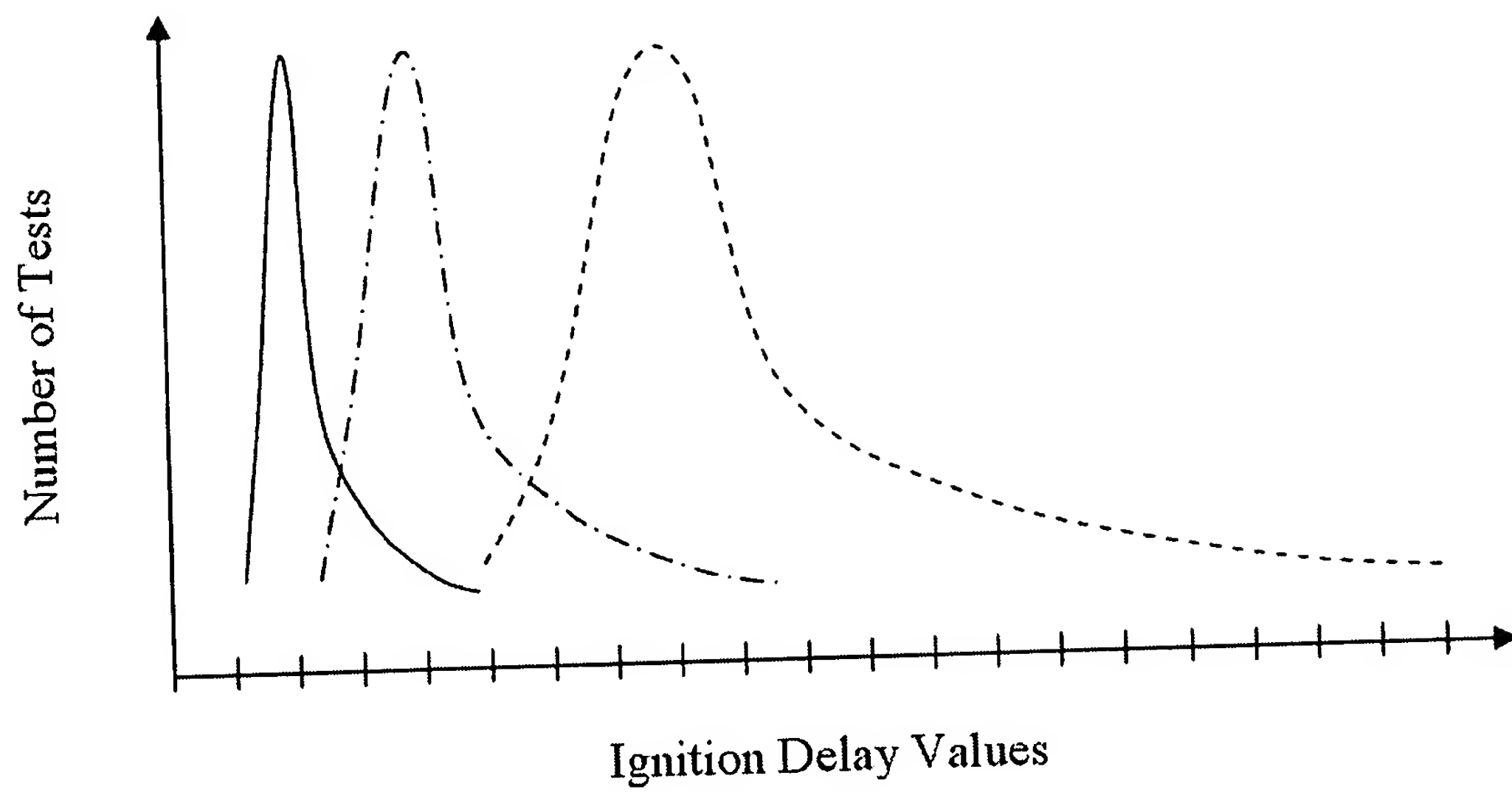


FIG. 9






Legend:  Two-sprays  
 Two-jets  
 Drop-Test

FIG. 10

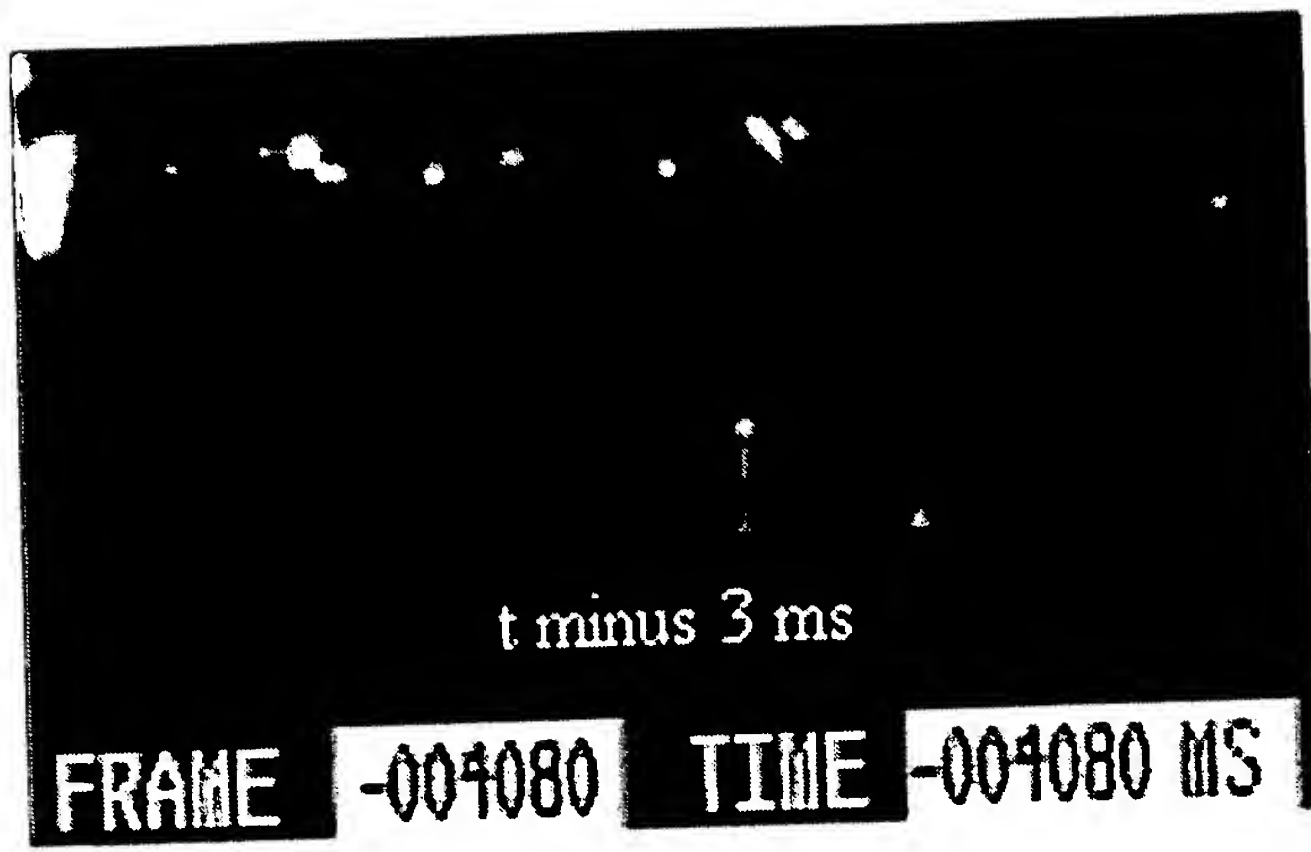


FIG. 11a

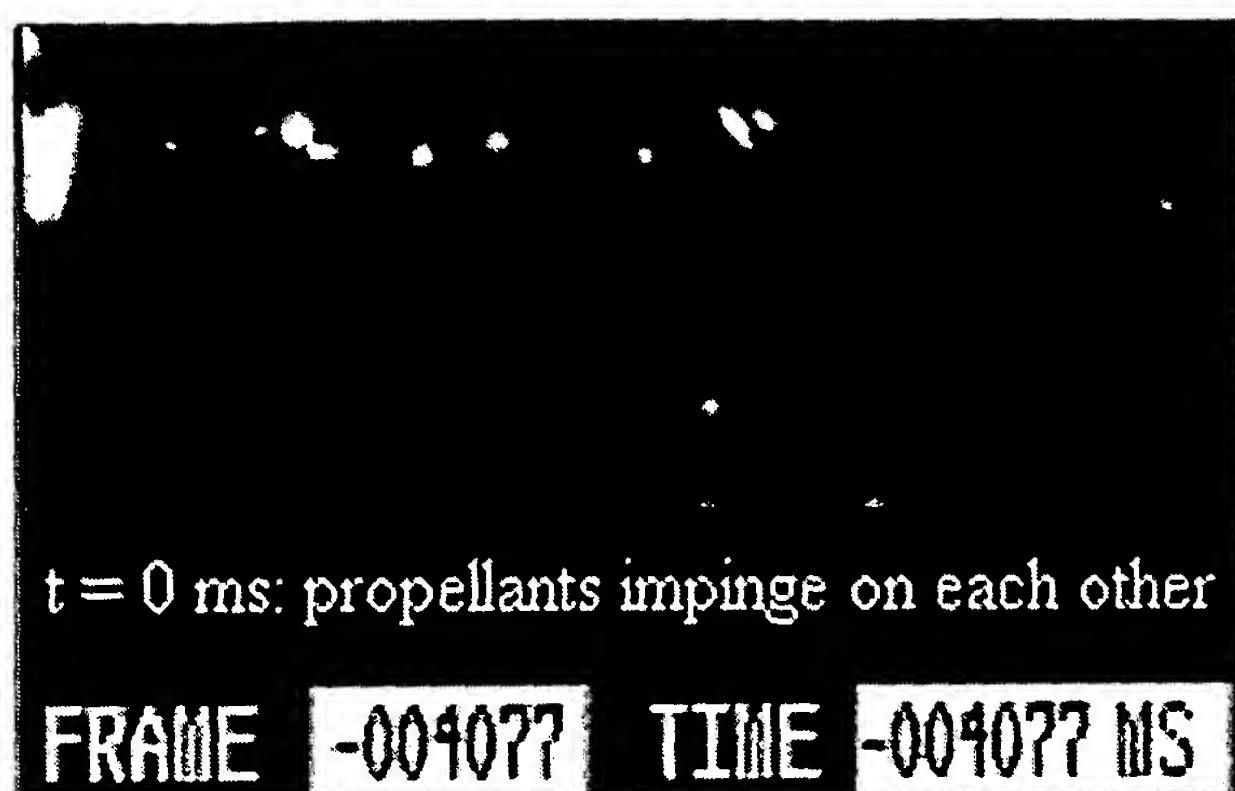


FIG. 11b

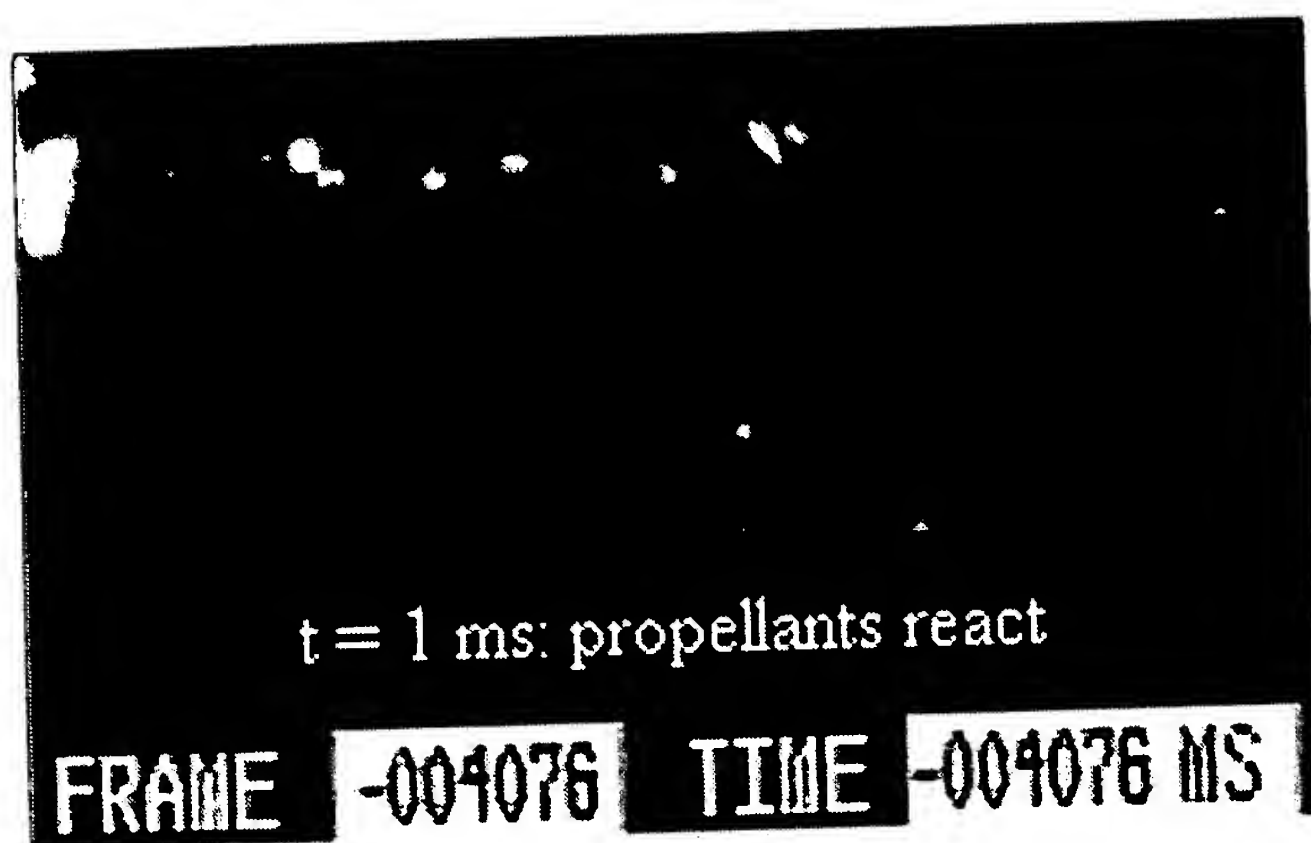


FIG. 11c

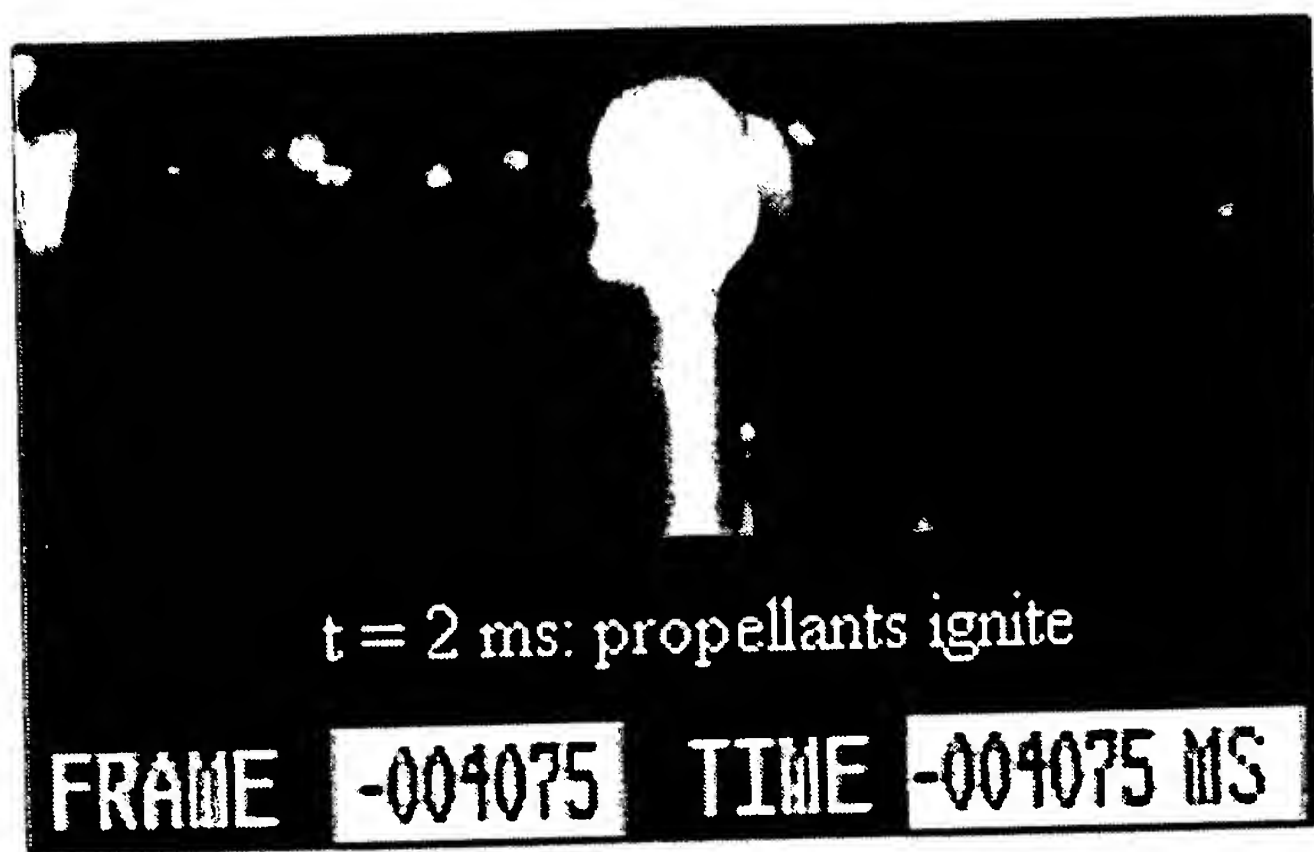
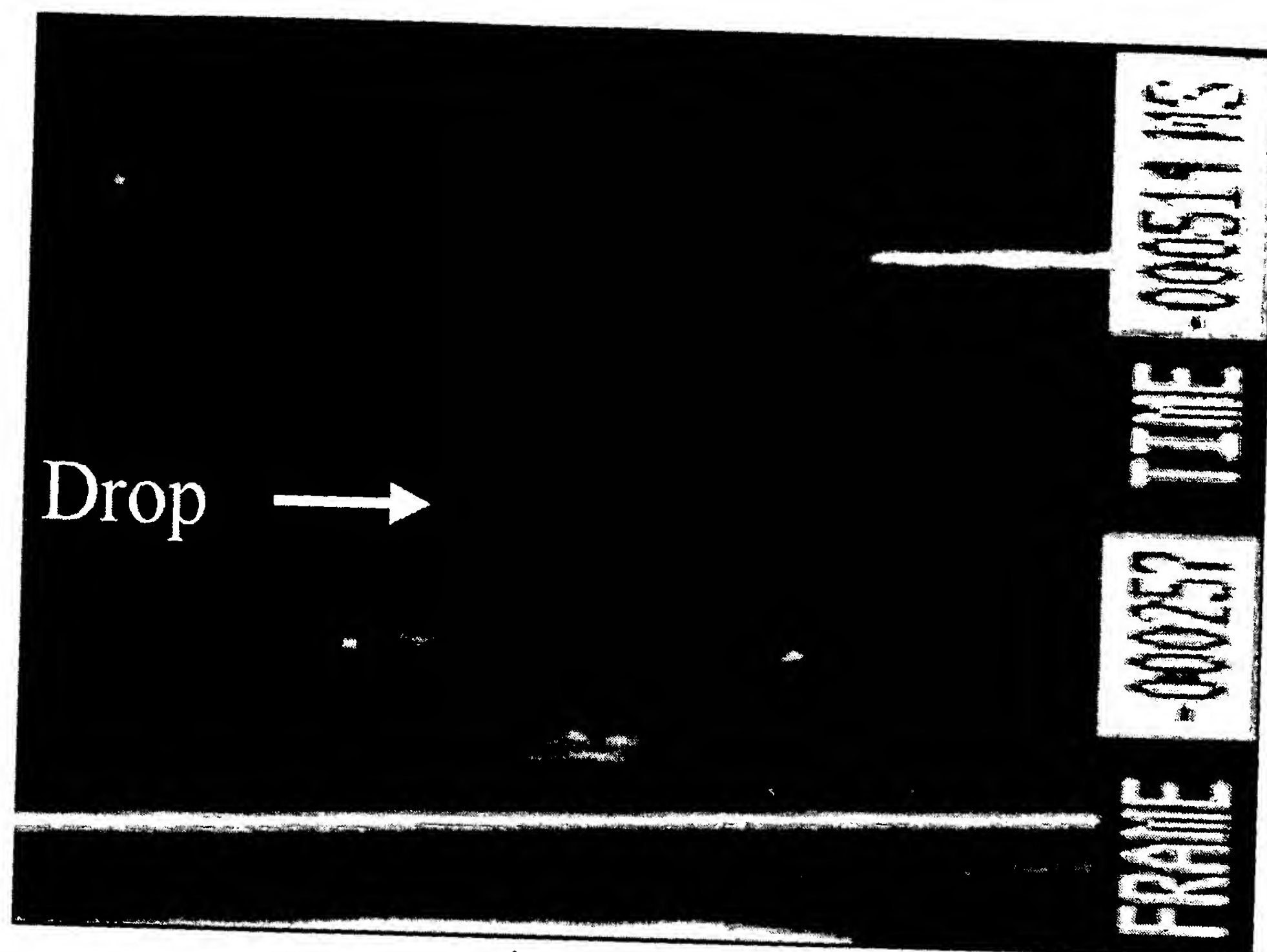
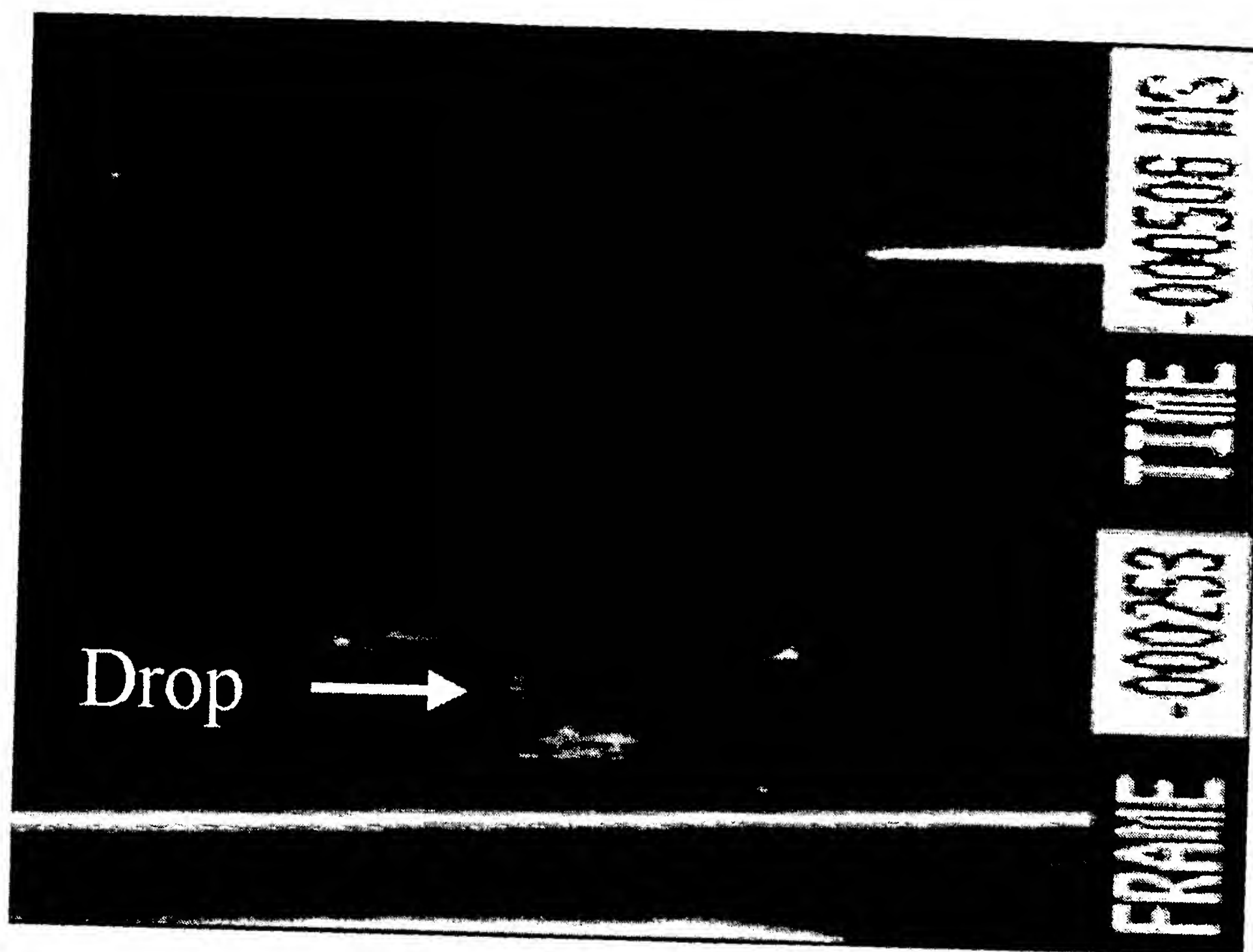


FIG. 11d



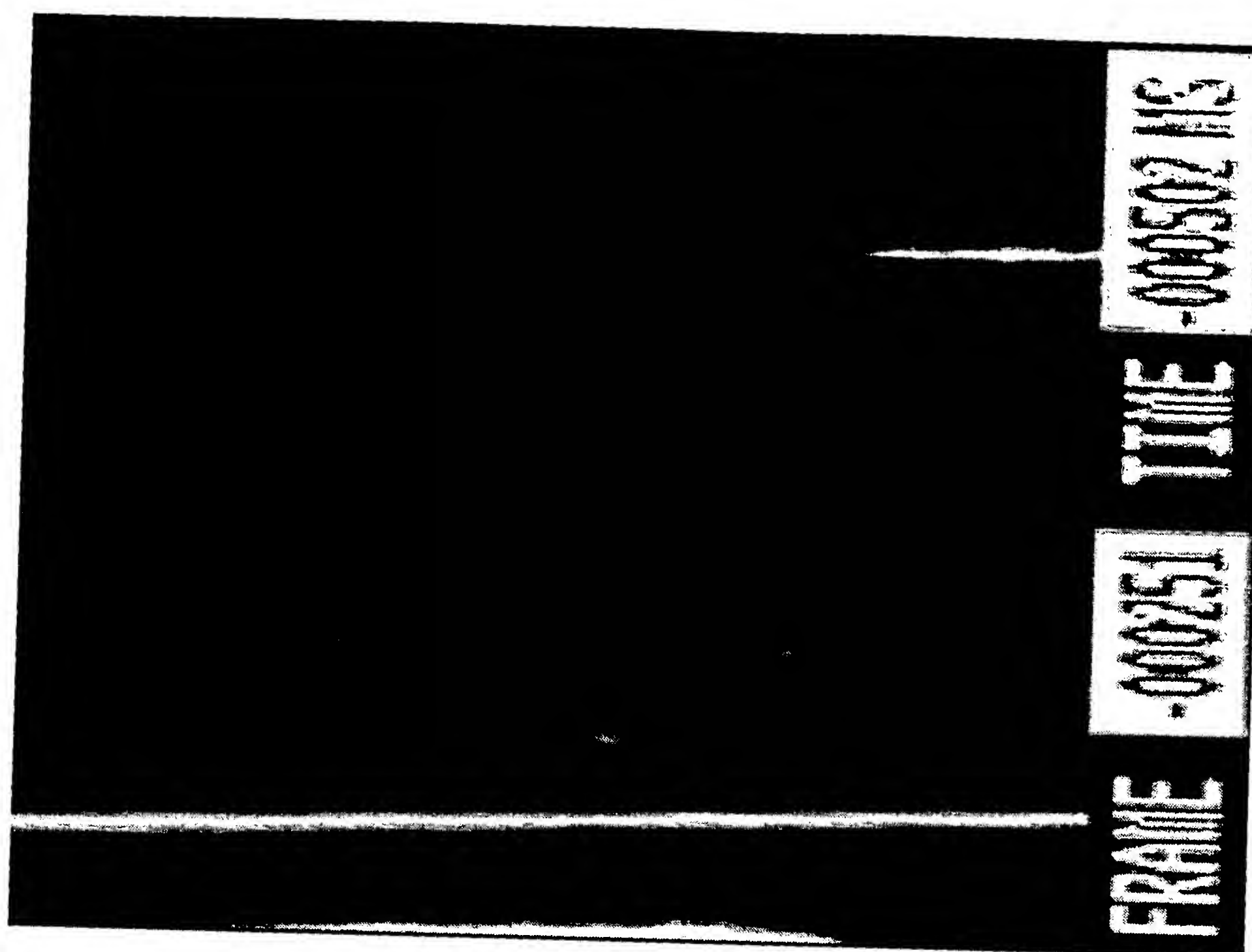
t minus 12 ms

**FIG. 12a**

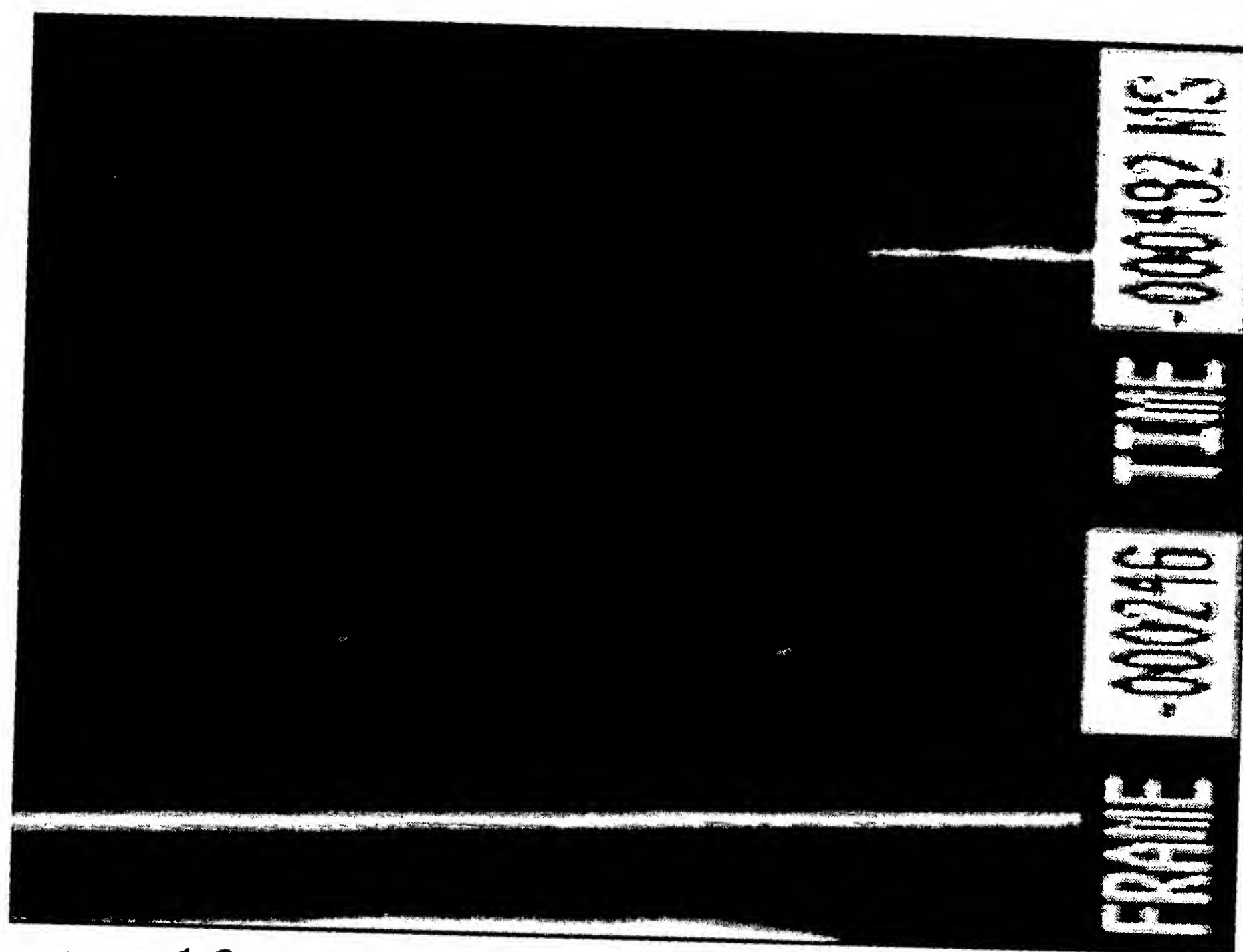


$t - 4 \text{ ms}$   
**FIG. 12b**

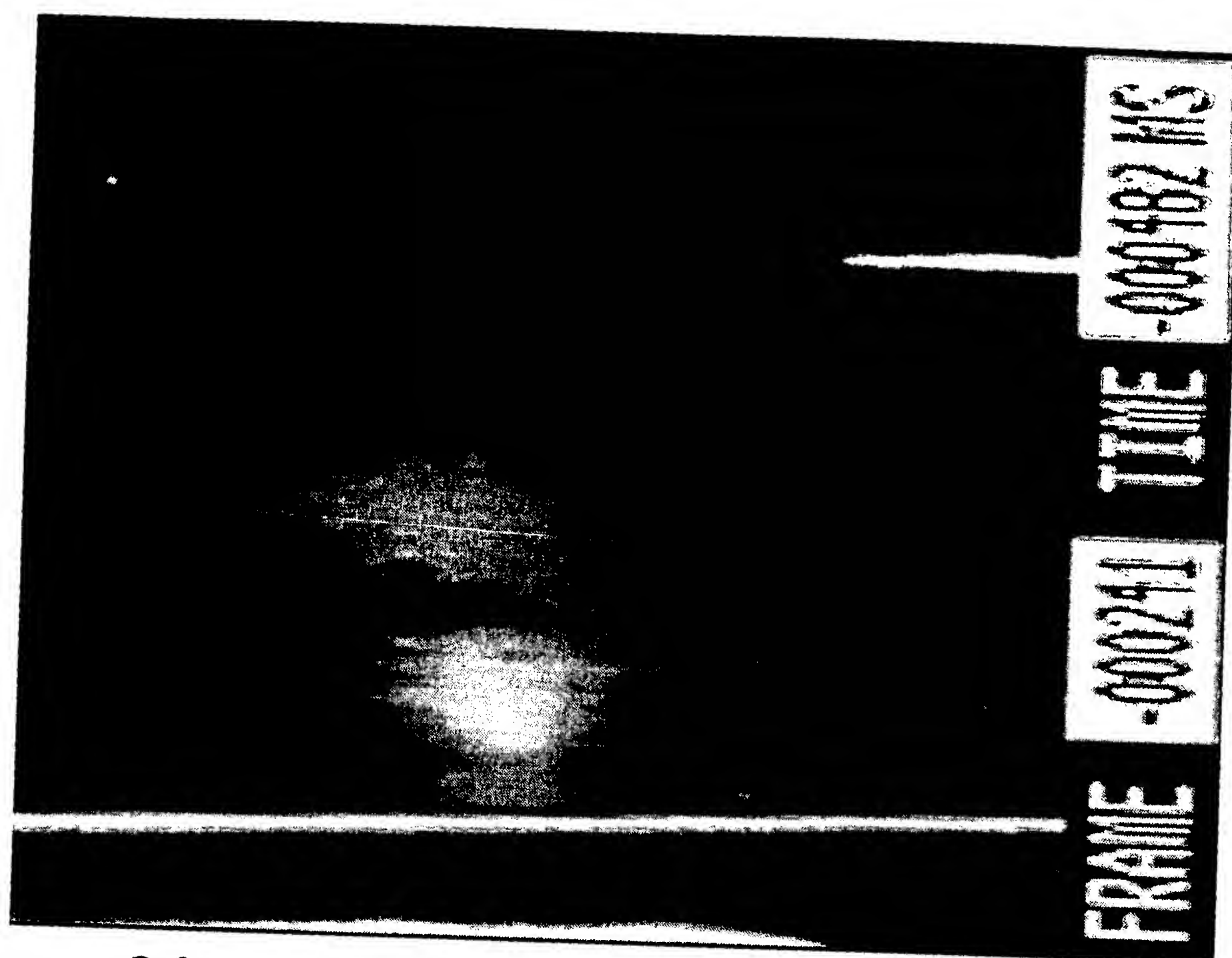




$t = 0$  ms: oxidizer drop hits fuel  
**FIG. 12c**



$t = 10$  ms: propellants start reacting  
**FIG. 12d**



$t = 20$  ms: propellants visibly reacting  
**FIG. 12e**



$t = 24$  ms: propellants ignite  
**FIG. 12f**